AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 20. (Canceled).

21. (Currently Amended) A method for generating a network which connects all users residing within a particular territory to a main distribution node, comprising the steps of:

a) generating a network plan using the following substeps:

i) generating a graph which represents the network and which is composed of edges and nodes, the edges representing all transmission paths in the network, wherein a length and a direction of each of the edges is determined as a function of a real topography of street segments and definable cable paths of a particular territory associated with the network, the nodes representing intersections between at least one of the street segments and the definable cable paths,

ii) assigning the users to the graph, each of the users being connected to one of a closest edge of the edges and a closest node of the nodes via at least one service edge,

iii) generating a tree structure by removing unnecessary edges of the edges from the graph so that only one particular connection exists between the main distribution node and each of the users, wherein the particular connection is composed of the at least one service edge, the edges and the nodes of the tree structure,

~~iv) determining needs and requirements for each of the users,~~ and

iv) determining at least one load of the edges of the tree structure as a function of ~~the needs and the~~ at least one requirements for each of the users to provide ~~a drafted~~ the network plan; and

b) generating the network according to the ~~drafted~~ network plan.

22. (Currently Amended) The method according to claim 21, wherein step (a) includes the substep of:

~~v~~i) delimiting areas of the graph, and dimensioning and selecting a particular technology to be used for each of the edges, the at least one service edge and the node of the tree structure as a function of the at least one load.

23. (Previously Presented) The method according to claim 22, wherein substep (a)(ii) includes the substep of splitting the closest edge in the graph into two edges at a junction between the closest edge and the at least one service edge, and wherein the junction forms a further node.

24. (Previously Presented) The method according to claim 21, wherein substep (a)(iii) includes the substeps of:

A) determining a particular user of the users who has a first path of the transmission paths to the main distribution node along the graph which generates lowest provisioning costs compared to remaining users of the users, and marking the particular user, first edges of the edges and first nodes of the nodes which form the first path,

B) after substep (a)(iii)(A), selecting an unmarked user of the users has a second path of the transmission paths to the main distribution node which is a most economical path, the most economical path being determined using the first edges and the first nodes, and marking the unmarked user, second edges of the edges and second nodes of the node, the second edges and the second nodes forming the second path,

C) repeating substep (a)(iii)(B) until all of the users are marked, and

D) removing particular edges of the edges and particular nodes of the node from the graph, the particular edges and the particular node being unmarked.

25. (Previously Presented) The method according to claim 21, further comprising the steps of:

c). storing first data of the real topography and second data of the definable cable paths in a first database; and

d) storing third data of the users in a second database, the second database storing an address, junction coordinates and the requirements for each of the users.

26. (Currently Amended) The method according to claim 25, wherein the graph and the tree structure ~~is~~ are generated from the first and second data stored in the first database, and from the third data stored in the second database.

27. (Previously Presented) The method according to claim 21, wherein each street segment in the particular territory is defined by two particular edges of the edges during substep (a)(ii), each of the two particular edges representing one side of a particular segment of the street segments.

28. (Previously Presented) The method according to claim 27,

wherein the users are capable of being connected to the main distribution node using further connections via different-type transmission lines, each of the further connections has a respective transmission capacity and a respective maximum range, the further connections being distinguished from one another using the respective transmission capacities and the respective maximum ranges, and

wherein cables of the cable paths have different numbers of copper pairs wires or glass fibers, the users being supplied by a particular cable of the cables so that at least one of telephone lines and data lines of the transmission lines which are necessary needed for a first user of the users is capable of extending from the particular cable, passing a second user of the users and leading to a third user of the users.

29. (Previously Presented) The method according to claim 27, wherein each of the segments is delimited and dimensioned, and the particular technology to be used for each of the edges is determined according to the following substeps:

A) defining at least one of the respective transmission capacity of cable distributors and the respective maximum range of a transmission equipment to be used for at least one cable distribution area, the capacity being determined from the transmission equipment,

B) selecting to a particular user of the users having the at least one service edge which is connected to a particular node of the nodes which is connected to only one further edge of the edges,

C) starting at the particular user, extending the at least one service edge, the edges and the nodes of the tree structure in a direction of an exchange to reach a limit edge, the limit edge bordering a further node of the nodes which is connected to a further edge of the edges, the further edge having a respective load exceeding at least one of the respective transmission capacity and the respective maximum range of one of the cable distributors and the at least one cable distribution area,

D) marking specific users of the users which are connected to the exchange via the limit edge, and assigning each of the specific users to a respective cable distribution subarea, and

E) repeating steps B) through D) until all the users are assigned to respective cable distribution subareas.

30. (Previously Presented) The method according to claim 29,

wherein, after substep (E), all of the respective cable distribution subareas are recursively combined into the at least one cable distribution area so that the at least one load of each of the at least one cable distribution area does not exceed the capacity of a respective distributor of the cable distributors, and

wherein each of the users is assigned to only one cable distribution area.

31. (Previously Presented) The method according to claim 29, wherein a particular subarea of the cable distribution subareas is not combinable with an adjacent subarea of the cable distribution subareas which has a particular load that is smaller or equal to the respective load

of the particular subarea, and wherein the particular subarea is combined with another subarea of the at least one cable distribution area to form a larger cable distribution subarea by selecting the particular subarea from the tree structure.

32. (Previously Presented) The method according to claim 29, wherein only particular subareas of the cable distribution subareas which are directly adjacent to one another are combined into the at least one cable distribution area.

33. (Previously Presented) The method according to claim 30, further comprising the substeps of:

F) after substep (E), searching the tree structure for at least one further subarea of the respective cable distribution subareas, the at least one further subarea having a first load which is combined with a second load of a directly adjacent subarea of the respective cable distribution subareas, the second load being smaller or equal to the first load, the directly adjacent subarea having a respective limit edge which borders on a same node of the nodes of the at least one further subarea, the first load having a respective capacity which is greater than the capacity of the cable distributor,

G) combining additional subareas of the cable distribution subareas which are located in the tree structure into a particular area of the at least one cable distribution area, the additional subareas excluding smallest subareas of the at least one cable distribution subarea,

H) removing the additional subareas from the tree structure, and ignoring the additional subareas when generating at least one remaining area of the at least one cable distribution area to separate or ignore all of the users, the service edges, the edges and the nodes connected to the exchange by the limit edge from the tree structure, the respective load of the separated areas being subtracted from the respective load of all of the edges which connect the edges to the exchange, and

J) determining if any further limit edge of the additional subareas borders a further node of the nodes which connects the separated areas to the exchange, wherein, if the further limit edges are not present, a connecting node of the nodes, further edges of the edges and further nodes of the nodes which connect the connecting node to a next node on which the further limit edge borders are removed.

34. (Previously Presented) The method according to claim 33, wherein further cable distribution areas are generated using the following substeps:

K) checking if the connecting node is connected to a single edge of the edges and to the limit edge, the respective load of the single edge being greater than all other edges which are provided in the tree structure,

L) if a sum of the respective loads of the respective cable distribution subareas adjacent to the connected node is less than or equal to the capacity of the cable distributor, combining all of the respective cable distribution subareas into a further cable distribution subarea having a particular load which is equal to the sum of the respective loads, and performing substep (a)(I),

M) if the sum of the respective loads is greater than the capacity of the cable distributor, combining adjacent subareas of the cable distribution subareas having largest respective loads, the largest respective load being smaller than the capacity of the cable distributor, and forming the further cable distribution subarea,

N) removing the further cable distribution subarea from the tree structure, or ignoring the further cable distribution subareas when creating the at least one cable distribution area, subtracting the respective load of an eliminated area of the at least one cable distribution area from an assigned load of particular edges which connect the particular area to the exchange, if any of the respective cable distribution subareas are attached to the tree structure, performing substep (F), and ending the

generation of the network if none of the cable distribution subareas are attached to the tree structure,

O) assigning the respective particular edge which connects the connected node to the exchange as a further limit edge of a new cable distribution subarea,

P) if the further limit edge is adjacent to a further node of the nodes on which no further limit edges border, determining a next node of the nodes on which another limit edge borders by starting from the further limit edge and extending toward the exchange,

Q) if no further nodes are found in substep (P), assigning the further cable distribution subarea to the particular area of the at least one cable distribution area and completing the generation of the network, and

R) connecting the limit edge of the further cable distribution subarea to the further node, and repeating substeps (F) through (O).

35. (Previously Presented) The method according to claim 29, wherein, after the at least one cable distribution area is completed, performing the following substeps:

S) determining a distribution center of each of the at least one cable distribution area in relation to a location and the requirements of each of the users who are assigned to the at least one cable distribution area, wherein one of the nodes of the at least one cable distribution area forms the distribution center and simultaneously forms a junction between the cable distribution area and the network being generated,

T) assigning the respective load of the at least one cable distribution area to the distribution center,

U) generating a further tree structure, marking all of the nodes and all of the edges of the tree structure generated in substep (a)(ii) which connect the distribution centers defined as nodes to the exchange, and

removing or ignoring unmarked users of the users, unmarked service edges of the service edges, unmarked nodes of the nodes and unmarked edges of the edges from the further tree structure.

36. (Previously Presented) The method according to claim 33,

wherein each of additional users of the users having the respective loads which are greater than the capacity of the cable distributor are defined as a single area of the at least one cable distribution area prior to completing substep (F), each of the additional users being assigned with a predetermined number of connections to cover particular requirements of each of the further users,

wherein the next node is assigned with a further requirement for a further tree structure which is a multiple of the capacity to cover the requirements of each of the additional users, and each of the additional users is removed from the further tree structure, the next node forming one of the distribution center and the location of the cable distributor assigned to the next user.

37. (Previously Presented) The method according to claim 21, wherein substep (a)(iv) includes assigning a "0" load to all of the edges of the tree structure, moving from a particular user of the users to a next user of the users along at least one particular edges of the edges and the nodes in a direction of an exchange, and adding the requirements of the particular user to each of the at least one particular edge.

38. (Currently Amended) The method according to claim 29, wherein each of the segments is delimited and dimensioned according to the following substeps:

V) assigning a load value of "~~0~~ 0" to all of the edges in the tree structure,

W) moving from an additional user of the users along at least one particular edge of the edges and at least one particular node of the nodes to the cable distributor of the at least one cable distribution area which belongs to the additional user, and adding the requirements of the additional user to the at least one particular edge,

X) assigning a cable to each respective edge of the edges, the cable having the capacity which covers the respective load of the respective edge, and

Y) assigning a transmission equipment to each respective node of the nodes, the transmission equipment covering the respective load of the respective node.

39. (Previously Presented) The method according to claim 38, wherein substeps (a)(iv), substeps (A) to (U), and substeps (V) to (Y) are applied to a further tree structure after substep (U), and wherein a different capacity and a different range is defined for further cable distribution areas to be created on a new tree level in substep (A).

40. (Previously Presented) The method according to claim 21, wherein the network includes one of a telecommunication network, a water network, a district heating network and a power network.

41. (Previously Presented) The method according to claim 22, wherein the technology relates to one of a cable and a line to be provided.

42. (Previously Presented) The method according to claim 27, wherein the two edges extend in parallel with respect to one another.

43. (Previously Presented) The method according to claim 28, wherein the transmission lines include one of copper lines, copper pairs and glass fibers.

44. (Previously Presented) A set of instructions residing in a storage medium, the set of instructions capable of being executed by a processor to implement a method for generating a network which connects all users residing within a particular territory being supplied to a main distribution node, the method comprising the steps of:

a) generating a network plan using the following substeps:

i) generating a graph which represents the network and which is composed of edges and nodes, the edges representing all transmission paths in the network, wherein a length and a direction of each of the edges is determined as a function of a real topography of street segments and definable cable paths of a particular territory associated with the network, the nodes representing intersections between at least one of the street segments and the definable cable paths,

ii) assigning the users to the graph, each of the users being connected to one of a closest edge of the edges and a closest node of the nodes via at least one service edge,

iii) generating a tree structure by removing unnecessary edges of the edges from the graph so that only one particular connection exists between the main distribution node and each of the users, wherein the particular connection is composed of the at least one service edge, the edges and the nodes of the tree structure,

~~iv) determining needs and requirements for each of the users;~~ and

iv) determining at least one load of the edges of the tree structure as a function of ~~the needs and the~~ at least one requirements for each of the users to provide a drafted plan; and

b) generating the network according to the drafted plan.

45. (New) The method according to claim 21, wherein the at least one requirement is means for connecting to at least one of a telecommunications network access, a television services network access, a water network access, a power network access, and a heating network access.